Cable Communication:

Cables made of optical fibers first came into operation in the mid-1970s. In fiber cable light signals are transmitted into a thin fiber of plastic or glass. Fiber cables have a lot of advantages like low material cost, high transmission capacity, low signal attenuation etc.

Fiber-optic cables are designed for various applications overland, underground and underwater. These fiber cables are the highways through which global data traffic travels and at present, an approximate 378 cables span a length of 1.2 million kilometers globally.

Ships carry these cables and plough near the shore to pass these cables and submarines plough is pulled by a specialized ship, digging out a trough and burying the cables underwater to avoid damage from other sea-based activities. During this installation process, the seabed is disturbed and the aquatic life in that area is also affected. Once installed, cables remain on the seabed for many years, they carry high voltage that can reach up to 11,000 volts, they emit thermal radiation that affects sensitive fishes and marine mammals. Being surrounded by water will eventually cause the external cable casings to break down, no matter how well it has been engineered. This is especially true of older models, and this leads to chemical pollution, capable of inciting environmental change.

References:

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